

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently amended) A method implemented on one or more computing devices, comprising:

receiving from a computing device operated by a customer of network services from an operator of the one or more packet routed networks a service request for adding, modifying or canceling a packet transport service on the one or more packet routed networks having defined service levels on the one or more packet networks; and

automatically generating, in response to receiving the service request, an updated configuration ~~data~~ for one or more of a plurality of network elements of said one or more packet networks necessary for implementing the service request; and

updating ~~configurations of~~ the one or more network elements ~~according to~~ with the updated configuration ~~data~~[[:]] [[:]]

wherein automatically generating the updated configuration comprises, for each of the one or more network elements affected by the service request,

selecting one or more scripts from a plurality of predefined scripts based at least in part on the type of device and its vendor; and

populating a configuration template that is specific to the network element with configuration data from a network database according to the one or more scripts, the network database storing information about each of the one or more network elements affected by the service request according to a vendor-independent schema.

2-6. (Cancelled)

7. (Previously presented) The method of claim 1, further comprising verifying that said new configuration data is consistent with a configuration of said one or more packet networks.

8. (Previously presented) The method of claim 1, further comprising updating a network database, storing configuration data for said one or more network elements with said generated updated configuration data.

9. (Cancelled)

10. (Previously presented) The method of claim 1, further comprising verifying that said updated configuration of said one or more network elements is consistent with configuration data, for said one or more network elements, stored in a network database.

11. (Previously presented) The method of claim 10, wherein said verifying step comprises:

retrieving said stored configuration data regarding said one or more network elements from said network database;

identifying one or more fields in said updated configuration of said one or more network elements; and

comparing values of said one or more identified fields with values of corresponding fields in said retrieved configuration data.

12. (Original) The method of claim 11, further comprising generating an exception in response to said values of said one or more identified fields not matching said values of corresponding fields in said retrieved configuration data.

13. (Currently amended) A computer-implemented method for generating a network element specific configuration, comprising:

receiving a request for adding, modifying or canceling a service on one or more packet routed networks;

updating, upon receiving said request, one or more corresponding objects for said service in a network database comprising of network element inventory data for a plurality of network

elements of said one or more packet routed networks, the network database storing the network inventory data using an vendor-independent schema;

determining which ones of said plurality of network elements are affected by said request;

retrieving one or more scripts from a plurality of predefined scripts based on the type and vendor of the network element;

automatically generating updated configuration data, for each of said one or more affected network elements, using the one or more scripts from at least said network element inventory data and one or more of a plurality of template fragments comprising predefined configuration text; and

~~updated~~ updating configurations of each of said one or more affected network elements according to said updated configuration data.

14. (Cancelled)

15. (Original) The method of claim 14, further comprising obtaining abstract connectivity information for each of said one or more affected network elements from said network database.

16. (Original) The method of claim 15, wherein said abstract connectivity information specifies a manner of connection between said one or more affected network elements.

17. (Original) The method of claim 16, wherein said automatically generating configuration data further comprises:

selecting said one or more of said plurality of template fragments; and
assembling said selected template fragments into a template.

18. (Original) The method of claim 17, further comprising populating said assembled template with said network element inventory data.

19. (Original) The method of claim 13, further comprising communicating said configuration data to each of said one or more affected network elements.

20. (Canceled)

21. (Currently amended) Computer readable media storing instructions that when read a computer enable the computer to ~~undertake~~ perform a method comprising:

receiving from a computing device of a customer of network services offered by an operator of one or more packet networks, a service request for adding, modifying or canceling a packet transport service having defined service levels on the one or more packet networks;

automatically generating, in response to receiving the service request, updated configuration data for one or more of a plurality of network elements of said one or more packet networks necessary for implementing the service request; and

updating each of configurations of the one or more network elements with the updated configuration for the network element according to the updated configuration data;

wherein automatically generating the updated configuration comprises, for each of the one or more network elements affected by the service request,

selecting one or more scripts from a plurality of predefined scripts based at least in part on the type of device and its vendor; and

populating a configuration template that is specific to the network element with configuration data from a network database according to the one ore more scripts, the network database storing information about each of the one or more network elements affected by the service request according to a vendor-independent schema.

22. (Original) The computer readable media of claim 21, wherein the method further comprises automatically determining which of the plurality of network elements will be affected by the service request.

23. (Previously presented) The computer readable media of claim 21, wherein automatically generating updated configuration data includes generating confirmation data based at least in part on data from a network database storing current configuration data for said one or more network elements.

24-26. (Cancelled)

27. (Previously presented) A computer readable storage medium comprising: stored metadata for describing elements of a packet routed network, relationships between the elements of the packet network, and types of properties to be stored with respect to each element of the packet routed network; and fields defined by the metadata for storing configuration data.

28. (New) The method of claim 1, further comprising getting abstract connectivity/relationship information for the network element from a model of the one or more packet networks.

29. (New) The method of claim 28, wherein abstract connectivity/relationship information for the network element from a model is described using meta data stored in the network database, the meta describing the configuration data stored by the network database.

30. (New) The method of claim 1, wherein each of the plurality of predefined scripts are device and vendor-specific.

31. (New) The method of claim 1, wherein automatically generating the updated configuration further comprises, for each of the one or more network elements affected by the service request, executing the one or more scripts in order to select a plurality of template fragments from a library of predefined template fragments for assembly into the configuration template.

32. (New) The method of claim 1, further comprising storing meta data describing each type of network element included in the plurality of network elements, the network inventory database storing data on each network element according to a schema defined by the meta data description.

33. (New) The method of claim 1, wherein the configuration template is selected from a plurality of templates based at least in part on the vendor of the network element.

34. (New) The method of claim 1, wherein automatically generating the at least the updated configuration further comprises, for each of the one or more network elements affected by the service request, selecting a plurality of template fragments from a library of predefined template fragments for assembly into a configuration template.

35. (New) The computer readable media of claim 21, wherein the method further comprises getting abstract connectivity/relationship information for the network element from a model of the one or more packet networks.

36. (New) The computer readable media of claim 35, wherein abstract connectivity/relationship information for the network element from a model is described using meta data stored in the network database, the meta describing the configuration data stored by the network database.

37. (New) The computer readable media of claim 21, wherein each of the plurality of predefined scripts are device and vendor-specific.

38. (New) The computer readable media of claim 21, wherein automatically generating the updated configuration further comprises, for each of the one or more network elements affected by the service request, executing the one or more scripts in order to select a plurality of template fragments from a library of predefined template fragments for assembly into the configuration template.

39. (New) The computer readable media of claim 21, further comprising storing meta data describing each type of network element included in the plurality of network elements, the network inventory database storing data on each network element according to a schema defined by the meta data description.

40. (New) The computer readable media of claim 21, wherein the configuration template is selected from a plurality of templates based at least in part on the vendor of the network element.

41. (New) The computer readable media of claim 21, wherein automatically generating the at least the updated configuration further comprises, for each of the one or more network elements affected by the service request, selecting a plurality of template fragments from a library of predefined template fragments for assembly into a configuration template.